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PHALANGIDS FROM CENTRAL AMERICA AND THE WEST INDIES

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The writers have had the opportunity of examining a considerable collection of phalangids from Central America and the West Indies. A number of new species and several new genera were discovered.

The Gonyleptidae is poorly represented in the North American fauna, species having been previously recorded only from Panama. In this study, three more gonyleptids were encountered and further increase our knowledge of the northern ranges of this group. A number of new species of Phalangodidae were found and indicate the diversity of this group in an area which has been somewhat neglected. The greatest number and variety of species were found in the Cosmetidae which apparently reach their stage of greatest development in this area.

The writers are again indebted to Dr. F. E. Lutz for the fine collecting he did throughout the West Indies. Other collectors have also contributed, and they are acknowledged after the description of the species. Thanks are also due to Dr. W. J. Gertsch for permitting the writers to examine the collection. All holotypes and paratypes are deposited in the collection of The American Museum of Natural History.

SUBORDER LANIATORES THORELL

PHALANGODIDAE Simon

Phalangodinae Roewer

AZACA, NEW GENUS

Dorsal scute consisting of five areas, the third free tergite with a pair of spines, the remaining free tergites, free sternites and dorsal areas unbedecked. Eye tubercle low, unarmed, not situated on the anterior margin of the cephalothorax. Third and fourth tarsi without scopulae. Tarsal articulations: 3–more than 6–5–6. End group of articulations of first leg, 2; of second leg, 3. Borders of areas parallel to each other; first area not divided by a median line.

GENOTYPE.—*Azaca longa*, new species.

This genus is related to *Piercenia* Roewer but differs in the number of tarsal joints and in the spination of the free tergites.

Azaca longa, new species

Figure 16

FEMALE.—Total length of body, 2.9 mm. Cephalothorax, 0.8 mm. Width of body at widest point 1.6 mm.

	I	II
Trochanter	0.3 mm.	0.4 mm.
Femur	0.8	1.6
Patella	0.4	0.6
Tibia	0.7	1.4
Metatarsus	1.2	2.0
Tarsus	0.8	1.4
Total	4.2 mm.	7.4 mm.

	III	IV
Trochanter	0.4 mm.	0.4 mm.
Femur	1.1	1.9
Patella	0.4	0.6
Tibia	0.9	1.5
Metatarsus	1.5	2.4
Tarsus	0.9	1.2
Total	5.2 mm.	8.0 mm.

Animal quite elongate in appearance, dorsum finely granulate, entire dorsum unarmed except for the paired spines on the third free tergite. Eye tubercle low, unarmed, not situated on the anterior margin of the cephalothorax. A slight hump, lower than the eye tubercle, is situated between the eye tubercle and the anterior margin. Venter and coxae finely tuberculate, free sternites unarmed.

Legs: armed with a few small scattered hairs, finely granulate. Tarsal articulations: 3–8–5–6. End group of articulations of first leg, 2; of second leg, 3.

Chelicerae normal.

Palpus: trochanter, 0.2 mm. long; femur, 0.5; patella, 0.4; tibia, 0.4; and tarsus, 0.5. Total length, 2.0 mm. Entire palpus unarmed dorsally, ventrally armed as follows: a small spine-bearing tubercle at the distal portion of the trochanter; at the proximal part of the femur, two large spine-bearing tubercles, and a smaller one distally. The median portion of the patella with a large spine-bearing tubercle, pointing medially; on either side of the tibia, two large and two small spine-bearing tubercles. The tarsus with two large spine-bearing tubercles on either side, tarsal claw long and curved.

Entire dorsum reddish brown, the areas outlined in darker reddish brown, a median line through the five areas of darker brown. Cephalothorax and lateral margins darker than the central part of the abdomen. Venter and coxae concolorous with dorsum; chelicerae and the trochanter, femur, patella and tibia of legs, and trochanter and femur of the palpus concolorous with dorsum. Remainder of legs and palpus yellowish brown, lighter.

TYPE LOCALITY.—Female holotype from Port Limon, Costa Rica, March 25, 1905 (F. C. Paulmeier).

HEWUS, NEW GENUS

Dorsal scute consisting of five areas; all five dorsal areas and free tergites unarmed. Eye tubercle low, unarmed, not situated directly on the anterior margin of the cephalothorax. Tarsal articulations: 3–6–5–6. End group of articulations of first leg, 2; of second leg, 3. First dorsal area lacking a median line, borders of dorsal areas parallel to one another.

GENOTYPE.—*Hewus gertschi*, new species.

This genus is related to *Heteroscotolemon* Roewer but differs by not having a pair of spines over the eye tubercle.

Hewus gertschi, new species

Figure 19

MALE.—Total length of body, 2.6 mm. Cephalothorax, 0.8 mm. Width of body at widest portion, 2.0 mm.

	I	II	III	IV
Trochanter	0.3 mm.	0.4 mm.	0.4 mm.	0.4 mm.
Femur	0.5	1.2	0.8	1.2
Patella	0.4	0.6	0.4	0.5
Tibia	0.5	0.9	0.6	1.0
Metatarsus	0.9	1.1	0.9	1.4
Tarsus	0.5	1.0	0.9	0.9
Total	3.1 mm.	5.2 mm.	4.0 mm.	5.4 mm.

Dorsum slightly granulate, somewhat pyriform in shape, the widest portion of the animal at the region of the fifth area, slightly rounded caudad. First three areas of the dorsum divided by a median darker marking. Median line of the first area not present. A row of small tubercles on the lateral margin of the abdomen and the posterior margin of the fifth area and the free tergites. Posterior margin of the fifth area and the free tergites are likewise armed with numerous small hairs. All five dorsal areas and free tergites without median tubercles or spines. Eye tubercle low, unarmed, near the anterior part of the cephalothorax, but not situated on the anterior margin. Venter and coxae granulate.

Legs: armed with a few scattered hairs, fourth femur armed anteriorly with some larger tubercles and with a small spine on the distal portion.

Chelicerae normal.

Palpus: trochanter, 0.3 mm. long; femur, 0.4; patella, 0.3; tibia, 0.5; and tarsus, 0.4. Total length, 1.9 mm. Trochanter unarmed, femur unarmed dorsally, armed ventrally with two proximal spine-bearing tubercles and on the distal portion, placed laterally but pointing medially, with one spine-bearing tubercle. Tibia unarmed dorsally, armed ventrally on the medial side with three spine-bearing tubercles and on the ectal side with two spine-bearing tubercles. Tarsal claw long and curved.

Dorsum reddish brown with darker brown mottlings on the median line and at the junction of the areas. Lighter brown mottlings on the cephalothorax. Venter, coxae, chelicerae and palpi lighter reddish brown. Distal portion of leg tarsi yellowish brown, contrasting strongly with the remainder of the leg which is concolorous with the dorsum.

TYPE LOCALITY.—Male holotype from El Volcan, Chiriqui, Panama, February 19, 1936 (W. J. Gertsch).

KALINA, NEW GENUS

Dorsal scutes with five distinct areas, boundaries of areas parallel to one another. First area without a median line. Eye tubercle low, unbedecked, clearly removed from the anterior margin of the carapace. All dorsal areas and free tergites unarmed. Tarsal articulations: 3–more than 6–5–6. End group of articulations of first leg, 2; of second leg, 3. Third and fourth legs without scopulae.

GENOTYPE.—*Kalina parallela*, new species.

This genus is closely related to *Dapessus* Roewer but differs in having the boundaries of the areas parallel to one another and in having no spines over the eye.

Kalina parallela, new species

Figures 14 and 15

FEMALE.—Total length of body, 3.2 mm. Cephalothorax, 1.0 mm. Width of body at widest point, 2.3 mm.

	I	II
Trochanter	0.4 mm.	0.5 mm.
Femur	1.1	2.2
Patella	0.5	0.9
Tibia	0.8	1.7
Metatarsus	1.4	2.4
Tarsus	1.7	1.4
Total	5.9 mm.	9.1 mm.

	III	IV
Trochanter	0.4 mm.	0.6 mm.
Femur	1.8	4.5
Patella	0.6	1.3
Tibia	1.3	3.6
Metatarsus	2.2	4.9
Tarsus	1.1	1.3
Total	7.4 mm.	16.2 mm.

Body distinctly pyriform in shape, dorsum finely granulate, without any spines or other irregularities. Eye tubercle low, unarmed, clearly removed from the anterior margin of the carapace, eyes present, black, contrasting. Venter and coxae armed with only a few very small scattered hairs.

Legs: moderately long, fourth leg extremely long, armed only with a very few hairs. Tarsal articulations: 3–7–5–6. End group of articulations of first leg, 2; of second leg, 3.

Chelicerae normal.

Palpus: trochanter, 0.3 mm. long; femur, 0.6; patella, 0.3; tibia, 0.5; and tarsus, 0.5. Total length, 2.2 mm. Cylindrical, armed as follows: on the ventral, proximal portion of the femur, two spine-bearing tubercles; on the inner distal portion of the femur, a smaller spine-bearing tubercle. The inner margin of the patella with a spine-bearing tubercle. On either side of the ventral surface of the tibia, two spine-bearing tubercles, one at the distal and one at the proximal portion. Likewise on either side, a smaller spine-bearing tubercle between the two larger ones and a very small spine-bearing tubercle just distal to the distal large spine-bearing tubercle. Tarsi with two large spine-bearing tubercles, ventrally on either side. Tarsal claw long and curved. Dorsally the entire palpus is unarmed.

Entire dorsum and venter reddish brown, trochanters and distal portions of the legs yellowish brown, slightly lighter. Remainder of legs concolorous with dorsum. Chelicerae concolorous with dorsum. Palpi yellowish brown, lighter.

TYPE LOCALITY.—Female holotype and female paratype from Port Limon, Costa Rica, March 25, 1905 (F. C. Paulmeier).

KIMULA, NEW GENUS

All five areas of dorsum unarmed, first and second free tergites likewise unarmed. Third free tergite with a median spine. First area with a median line. Eye tubercle prolonged into a median spine, situated on the anterior margin of the cephalothorax. Fourth coxae widened laterally, third area wider than the cephalothorax. Tarsal joints: 4–more than 6–5–6. End group of articulations of first leg, 2; of second leg, also 2. Third and fourth tarsi without scopulae, tarsal claws simple.

GENOTYPE.—*Kimula elongata*, new species.

This genus differs from other genera of Phalangodinae in the number of tarsal joints and the dorsal spination.

Kimula elongata, new species

Figure 12

MALE.—Total length of body, 3.2 mm. Cephalothorax, 1.1 mm. Width of body at widest point, 2.5 mm.

	I	II
Trochanter	0.4 mm.	0.4 mm.
Femur	1.3	1.4
Patella	0.6	1.0
Tibia	0.8	1.4
Metatarsus	1.4	1.9
Tarsus	1.0	1.9
Total	5.5 mm.	8.0 mm.

	III	IV
Trochanter	0.7 mm.	0.8 mm.
Femur	1.4	1.8
Patella	0.6	1.0
Tibia	1.2	1.8
Metatarsus	1.4	2.1
Tarsus	1.3	1.4
Total	6.6 mm.	8.9 mm.

Dorsum finely granulate, elongate, a small tubercle present on either side of the median line of the first area. This tubercle appears to be of more specific than generic importance due to its small size. Remainder of dorsum unarmed except on the third free tergite where there is the median spine characteristic of the genus, and on either side of it a row of low tubercles. Eye tubercle prolonged into a median acute spine, slightly tuberculate at the base; spine is almost vertical above the base of the eye tubercle. As viewed dorsally, the widened fourth coxae are armed with tubercles and hairs. Venter and coxae armed with a few hairs. The fifth free

sternite with a pair of low tubercles in the median line.

Legs: armed with tubercles and scattered hairs. The fourth leg is armed with heavier tubercles and on the ventral posterior margin of the fourth femur has two large spines near the distal end. On the patellae and tibia a row of large tubercles on the ventral margin. Number of tarsal articulations, 4–9–5–6. End group of articulations of first leg, 2; of second leg, likewise 2.

Chelicerae very slightly enlarged.

Palpus: trochanter, 0.4 mm. long; femur, 1.1; patella, 0.4; tibia, 0.8; and tarsus, 0.4. Total length, 3.1 mm. Entire palpus unarmed dorsally. Femur armed ventrally with a spine-bearing tubercle at the proximal portion. The curved patella unarmed ventrally, the tibia armed ventrally with five spine-bearing tubercles on either side, the tarsi with three smaller spine-bearing tubercles on either side, tipped by the long curved claw.

Entire animal, including appendages, dark reddish brown with darker mottlings on the dorsum. Eye tubercle concolorous, tarsi of legs yellowish brown, lighter. Areas of dorsum poorly outlined.

TYPE LOCALITY.—Male holotype from Cayey, Puerto Rico, May 30, 1915 (F. E. Lutz); male and female paratypes from San Juan, Puerto Rico, November 11, 1914 (F. E. Lutz).

Neoscotolemon lutzi, new species

Figures 6, 7 and 10

MALE.—Total length of body, 2.0 mm. Cephalothorax, 0.7 mm. Width of body at widest point, 1.4 mm.

	I	II
Trochanter	0.3 mm.	0.3 mm.
Femur	1.0	2.3
Patella	0.3	0.9
Tibia	0.5	1.9
Metatarsus	0.7	2.2
Tarsus	0.6	1.3
Total	3.4 mm.	8.9 mm.

	III	IV
Trochanter	0.3 mm.	0.4 mm.
Femur	0.9	1.3
Patella	0.3	0.4
Tibia	0.7	0.9
Metatarsus	1.0	1.3
Tarsus	0.5	0.6
Total	3.7 mm.	4.9 mm.

Dorsal scute with five distinct areas, free tergites and dorsal scutes without median paired tubercles or spines. Each dorsal area and scute with a low transverse row of tubercles and a row of similar low tubercles along the lateral margin of the dorsal scute. Cephalothorax narrower than the abdomen, giving the body a pyriform shape. Eye tubercle tipped by the characteristic spine which extends straight above the eye tubercle. Eye tubercle very close to the anterior margin of the cephalothorax, but slightly separated from it. In the median line, midway between the eye tubercle and the abdomen are a pair of tubercles. Venter and coxae armed with a few hairs and granulations.

Legs: armed with a few scattered hairs. Tarsal articulations: 4–7–5–5. End group of articulations of first leg, 2; of second leg, 3.

Chelicerae normal.

Palpus: trochanter, 0.3 mm. long; femur, 0.5; patella, 0.3; tibia, 0.4; and tarsus, 0.3. Total length, 1.8 mm. Palpi armed as in Fig. 6; in addition the femur is armed with a single median spine ventrally.

Dorsum reddish brown with dark brown outlining the areas, and on the median line. A dark brown lateral line running from the anterior margin of the cephalothorax to the fifth area, venter reddish brown. Appendages yellowish brown, somewhat lighter, but with darker brown bands on the trochanter, distal and proximal portion of the femur and proximal portion of the patella and tibia of the legs.

The male is characterized by having slightly longer and heavier legs than the female and also by having somewhat more robust chelicerae.

FEMALE.—Total length of body, 2.2 mm. Cephalothorax, 0.6. Width of body at widest point, 1.5. Similar in appearance to male, with exceptions as mentioned above.

TYPE LOCALITY.—Male holotype and female paratypes from Laudet, Dominica, British West Indies, June 12, 1911 (F. E. Lutz), and male and female paratypes from "Long Ditton," Dominica, British West Indies, June 20, 1911 (F. E. Lutz).

This species is related to *Neoscotolemon pictipes* Banks, differing in having the spine above the eye straight and not curved and in having five instead of four tarsal joints in the third and fourth legs.

Neoscotolemon pictipes (Banks)

Scotolemon pictipes BANKS, 1908, P. Ent. Soc. Washington, IX, p. 38, Fig. 3.—*Neoscotolemon pictipes* ROEWER, 1912, Arch. Naturg., LXXVIIIA, fasc. 3, p. 150.—ROEWER, 1923, Die Weberknechte der Erde, p. 113, Fig. 113.

RECORD.—North of Vinales, Cuba, September 16, 1913 (F. E. Lutz).

Pachylicus rugosus (Banks)

Metapachylus rugosus BANKS, 1909, P. Acad. Nat. Sci. Philadelphia, LXI, p. 230.—*Paramitraceras rugosus* ROEWER, 1912, Arch. Naturg., LXXVIIIA, fasc. 3, p. 155.—*Pachylicus rugosus*

ROEWER, 1923, Die Weberknechte der Erde, p. 118, Fig. 121.

RECORD.—Port Limon, Costa Rica, March 25, 1905 (F. C. Paulmeier).

Paraconomma ovala, new species

Figures 1 and 2

FEMALE.—Total length of body, 1.7 mm. Cephalothorax, 0.5 mm. Width of body at widest point, 1.2 mm.

	I	II
Trochanter	0.2 mm.	0.2 mm.
Femur	0.5	0.9
Patella	0.2	0.3
Tibia	0.4	0.5
Metatarsus	0.5	0.7
Tarsus	0.5	0.9
Total	2.3 mm.	3.5 mm.

	III	IV
Trochanter	0.2 mm.	0.2 mm.
Femur	0.6	0.9
Patella	0.3	0.3
Tibia	0.5	0.7
Metatarsus	0.7	1.0
Tarsus	0.5	0.7
Total	2.8 mm.	3.8 mm.

Dorsum and free tergites unbedecked, eye tubercle in the form of an elevated cone, standing directly on the anterior margin of the cephalothorax. No median line present on first area. Venter and coxae granulate, unarmed. Boundaries of areas parallel to one another.

Legs: armed with a few scattered hairs and slightly tuberculate. Tarsal articulations: 3–4–5–5. End group of articulations of first leg, 2; of second leg, 2.

Chelicerae normal.

Palpus: trochanter, 0.2 mm. long; femur, 0.4; patella, 0.3; tibia, 0.4; and tarsus, 0.4. Total length, 1.7 mm. Palpus unarmed dorsally, armed ventrally as follows: a small tubercle on the median portion of the trochanter; femur with two large spine-bearing tubercles near the proximal portion, at the distal portion a spine-bearing tubercle pointing medially. Patella with a spine-bearing tubercle on the distal portion, pointing medially. Tibia with two large spine-bearing tubercles on either side. Tarsus likewise with two spine-bearing tubercles on either side.

Dorsum reddish brown; areas outlined in a somewhat darker brown, and a faint almost indistinguishable darker median line. Venter and coxae concolorous with the dorsum, all appendages yellowish brown, lighter.

TYPE LOCALITY.—Female holotype and female paratypes from San Juan, Puerto Rico, February 14, 1914 (F. E. Lutz).

Paraconomma ovala differs from *P. argentina* Roewer in lacking the tubercles which are scattered over the dorsum of the latter species.

Paraconomma spino-oculorum, new species

Figures 3 and 4

MALE.—Total length of body, 2.6 mm. Cephalothorax, 1.9 mm. Width of body at widest point, 1.1 mm.

	I	II	IV
Trochanter	0.2 mm.	0.3 mm.	0.4 mm.
Femur	1.0	1.4	1.4
Patella	0.4	0.5	0.5
Tibia	0.7	1.3	1.3
Metatarsus	1.1	1.4	1.4
Tarsus	0.5	1.4	0.8
Total	3.9 mm.	6.3 mm.	5.8 mm.

Dorsum finely granulate, the five areas of the abdomen unarmed but with a row of very small tubercles in the median portion of the third, fourth and fifth areas, and still smaller ones on the first and second. Boundaries of areas parallel; first area without a median line. Posterior margins of the free tergites armed with tubercles and hairs. Cephalothorax with the eye tubercle in the form of a cone, situated on the anterior margin. The eye tubercle is tipped at the apex with a small spine.

Legs: armed with scattered hairs and low tubercles on the femurs of the first and second legs. Fourth leg is tuberculate on most of the segments, and on the posterior margin of the femur there is a row of prominent tubercles. Tarsal articulations: 3–5–?–5. End group of articulations of first leg, 2; of second leg, 2.

Chelicerae normal.

Palpus: trochanter, 0.3 mm. long; femur, 0.9.; patella, 0.4; tibia, 0.8; and tarsus, 0.8. Total length, 3.2 mm. Palpi robust, femur armed ventrally with a row of small spines approximately ten in number, dorsally armed by a few smaller spines on the curved portion, tibia unarmed dorsally, armed ventrally on either side by two larger and two small spine-bearing tubercles. Tarsus armed ventrally on either side by four spine-bearing tubercles. Tarsal claw long and curved.

Dorsum, venter, chelicerae and palpi reddish brown; darker mottlings on the dorsum, the areas being somewhat outlined. Legs yellowish brown, lighter.

TYPE LOCALITY.—Male holotype from Coamo Springs, Puerto Rico, June 6, 1915 (F. E. Lutz).

This species differs from other species of *Paraconomma* in having a small spine above the eye tubercle.

Pseudomitraceras minutus, new species

Figures 8 and 11

MALE.—Total length of body, 1.4 mm. Cephalothorax, 0.4 mm. Width of body at widest point, 0.9 mm.

	I	II
Trochanter	0.1 mm.	0.1 mm.
Femur	0.4	0.5
Patella	0.1	0.2
Tibia	0.2	0.4
Metatarsus	0.3	0.5
Tarsus	0.2	0.5
Total	1.3 mm.	2.2 mm.

	III	IV
Trochanter	0.1 mm.	0.2 mm.
Femur	0.4	0.7
Patella	0.2	0.3
Tibia	0.3	0.6
Metatarsus	0.4	0.6
Tarsus	0.3	0.3
Total	1.7 mm.	2.7 mm.

Dorsum finely granulate, dorsal scute with five distinct areas, the first of which is divided by a median line. Cephalothorax about as wide as the anterior part of the abdomen. Eye tubercle situated directly on the anterior margin of the cephalothorax, eye tubercle prolonged into a cone which distally bends slightly anteriorly. On the median posterior line of this eye tubercle cone is a row of small tubercles, remainder of cone also tuberculate. Venter and coxae armed only with a few scattered hairs.

Legs: armed with a few small tubercles and hairs. Fourth leg strongly tuberculate with a row of four spinose tubercles on the ventral margin. Tarsal articulations: 3–5–5–5. End group of articulations of first leg, 2; of second leg, 3.

Chelicerae normal.

Palpus: trochanter, 0.1 mm. long; femur, 0.4; patella, 0.2; tibia, 0.3; tarsus, 0.3. Total length, 1.3 mm. Unarmed dorsally, armed ventrally as follows: femur with two spine-bearing tubercles near the base, one smaller one near the median portion; patella unarmed; tibia with two large and one small spine-bearing tubercles on either side, and the tarsus with two on either side. Claw long and curved.

Entire dorsum, venter, coxae and eye tubercle reddish brown. Appendages yellowish brown, somewhat lighter.

FEMALE.—Total length of body, 1.4 mm. Cephalothorax, 0.4. Width of body at widest portion, 0.9 mm.

Identical in appearance with male, except for the lack of the enlarged tubercles of the fourth leg.

TYPE LOCALITY.—Male holotype and female allotype from Cayey, Puerto Rico, May 30, 1915 (F. E. Lutz).

This species differs from *Pseudomitraceras braziliensis* Roewer in general appearance, and from *Pseudomitraceras curvatus* Goodnight and Goodnight by lacking the curvature of the areas.

Stygnommatinae Roewer

ANTAGONA, NEW GENUS

Dorsal scute with five areas, first area unarmed, median pair of tubercles on the second, third and fourth areas. A very small median spine on the fifth dorsal area and the first free tergite. A larger median spine on the second and third free tergites. Cephalothorax without eye tubercle. First area without a median line. Tarsal articulations: 5–more than 6–5–5. End group of articulations of first leg, 3; of second leg, 3. Third and fourth tarsi without scopulae.

GENOTYPE.—*Antagona spinula*, new species.

This genus differs from others in the subfamily in its armature and in the number of tarsal joints in the first leg.

Antagona spinula, new species

Figures 5 and 9

MALE.—Total length of body, 2.3 mm. Cephalothorax, 0.5. Width of body at widest point, 1.5 mm.

	I	II
Trochanter	0.3 mm.	0.4 mm.
Femur	0.9	2.1
Patella	0.3	0.9
Tibia	0.7	2.2
Metatarsus	1.2	2.9
Tarsus	0.5	1.4
Total	3.9 mm.	9.9 mm.

	III	IV
Trochanter	0.4 mm.	0.4 mm.
Femur	1.0	1.4
Patella	0.4	0.7
Tibia	0.9	1.3
Metatarsus	1.1	1.4
Tarsus	0.7	0.7
Total	4.5 mm.	5.9 mm.

Dorsum granulate, five distinct areas, median tubercles of second, third and fourth areas tipped with a small hair. The low median spines of the fifth area and first free tergite likewise tipped. In addition, on either side, there is one smaller, hair-tipped tubercle. The hair-tipped median spine of the second free tergite likewise has a smaller spine on either side. The median spine of the third free tergite has two smaller spines on either side, likewise hair-tipped; remaining free tergites with small paired hair-tipped tubercles, free sternites with four hair-tipped tubercles. Cephalothorax as wide as the first area of the abdomen, unarmed and without an eye tubercle.

Remainder of free sternites, genital operculum, and coxae tuberculate, armed with scattered hairs. In addition the fourth coxae have a number of larger spines, the largest pair just ventral to the lateral margin of the dorsal scute; a pair of smaller spines ventral. These four spines visible laterally from above. Another spine on either side at the junction with the trochanter. The third coxae have an anterior and a posterior row of teeth.

Legs: with numerous tubercles and hairs. In addition, the trochanter of the fourth leg is armed ventrally with a spine at the distal portion, a smaller spine medially. The femur is armed ventrally with a long median spine and numerous smaller spines. Remainder of leg has robust tubercles. Tarsal articulations: 5–10–5–5. End group of articulations of first leg, 3; of second, 3.

Chelicerae normal, but strongly tuberculate.

Palpus: trochanter, 0.3 mm. long; femur, 0.8; patella, 0.5; tibia, 0.7; and tarsus, 0.4. Total length, 2.7 mm. Palpus heavy, armed as in Fig. 5, and in addition on the inner margin of the femur, pointing medially, two spines.

Dorsum reddish brown, central portion of areas and free tergites a darker brown. Venter and coxae concolorous, appendages yellowish brown, somewhat lighter.

TYPE LOCALITY.—Male holotype from Uduado, Puerto Rico, March 16, 1906 (W. M. Wheeler). Immature paratype from Adjuntas, Puerto Rico, June 8, 1915 (W. M. Wheeler).

Stygnommatiplus armatus (Petrunkevitch)

Stygnomma armatus PETRUNKEVITCH, 1925, Trans. Connecticut Acad. Arts and Sci., XXVII, p. 63, Fig. 1.—*Stygnommatiplus armatus* ROEWER, 1928, Abh. Naturw. Ver. Bremen, XXVI, p. 544, Fig. 6.

RECORD.—Port Limon, Costa Rica, March 26, 1905 (F. C. Paulmeier).

COSMETIDAE Simon

Cosmetinae Cambridge

Acromares vittatum, new species

Figures 36 and 37

MALE.—Total length of body, 8.0 mm. Cephalothorax, 2.7 mm. Width of body at widest point, 6.8 mm.

	I	II
Trochanter	0.9 mm.	0.9 mm.
Femur	3.2	6.3
Patella	1.4	1.7
Tibia	2.0	4.8
Metatarsus	3.6	6.6
Tarsus	2.0	4.5
Total	13.1 mm.	24.8 mm.

	III	IV
Trochanter	1.1 mm.	1.1 mm.
Femur	4.1	5.1
Patella	1.9	2.0
Tibia	2.9	4.0
Metatarsus	4.5	6.0
Tarsus	2.5	2.5
Total	17.0 mm.	20.7 mm.

Dorsum finely granulate, eye tubercle very low, a pair of robust spines on the fourth area, remaining dorsal areas and free tergites unbedecked. Venter and coxae roughly tuberculate and armed with small hairs.

Legs: armed with scattered hairs and a few tubercles. Third and fourth legs enlarged over the first and second. Patella and tibia of the fourth leg with secondary sexual characters of the male, arranged with long spinose projections as follows: on the outer margin of the patella in the median portion there are two large projections and one small one between the two large ones. On the ventral side of the tibia there are an outer and an inner row of thickly set long spinose projections. Remaining portion of the tibia with tubercles. Tarsal articulations: 6–10–8–8. End group of articulations of both first and second legs, three in number.

Chelicerae very large.

Palpus: trochanter, 1.2 mm. long; femur, 2.5; patella, 1.1; tibia, 2.0; and tarsus, 1.4. Total length, 8.2 mm. Normal in appearance, characteristically flattened.

Cephalothorax, free tergites and lateral margins of the abdominal scutes, dark blackish brown. The large central area of the abdominal scutes reddish brown, spines dark. The areas are poorly delineated in this species, but there is an irregular series of white markings which consist of a white marginal marking about the abdominal scute and posterior part of the cephalothorax. There is likewise an irregular scattering of small white dots throughout the dorsum and on the cephalothorax and eye tubercle. Across the median portion of the scute, there is a series of large dots arranged in a curved row. On the free tergites, likewise, there is a row of white dots. There is no white marking between the cephalothorax and the abdomen. Venter and chelicerae dark brown, concolorous with cephalothorax. Remaining appendages reddish brown, concolorous with the larger part of the abdomen.

TYPE LOCALITY.—Male holotype from Bengue Viejo, British Honduras.

This species differs from *Acromares banksi* Goodnight and Goodnight in the different dorsal markings and spination of the fourth leg.

Cynorta casita, new species

Figure 20

FEMALE.—Total length of body, 6.6 mm. Cephalothorax, 1.5 mm. Width of body at widest point, 5.0 mm.

	I	II
Trochanter	0.5 mm.	0.7 mm.
Femur	2.9	6.0
Patella	0.8	1.4
Tibia	1.8	4.7
Metatarsus	3.2	6.2
Tarsus	2.1	4.2
Total	11.3 mm.	23.2 mm.

	III	IV
Trochanter	0.7 mm.	0.8 mm.
Femur	4.1	6.0
Patella	1.4	1.5
Tibia	3.1	3.7
Metatarsus	4.8	6.7
Tarsus	2.9	3.3
Total	17.0 mm.	22.0 mm.

Dorsum smooth, paired tubercles on first area and spines on the third, remaining dorsal areas and free tergites unarmed. Eye tubercle normal. Venter and coxae armed only with a few scattered hairs. Third and fourth legs not larger than first and second.

Legs: unarmed, having only a very few minute scattered hairs. Tarsal articulations: 6–12–8–9. End group of articulations of both first and second legs, three in number.

Chelicerae characteristically shaped.

Palpus: trochanter, 0.4 mm. long; femur, 1.4; patella, 0.7; tibia, 1.4; and tarsus, 0.7. Total length, 4.6 mm. Palpus characteristically flattened.

Dorsum reddish brown, spines concolorous, yellowish white markings as follows: a V at the margin of the cephalothorax which along the lateral margin of the cephalothorax and the first area of the abdomen widens into a wide lacy marking. A broken median line extends just posterior to the two spines where it joins a transverse line which likewise widens into a reticulate marking which occupies a large part of the fourth and fifth area. Venter, coxae and chelicerae concolorous with dorsum. Palpi and legs yellowish.

TYPE LOCALITY.—Female holotype and female paratypes from Casita Alta, Chiriqui, Panama, January 16, 1940 (G. C. Wood).

This differs from previously described species of *Cynorta* in the unusual pattern of the dorsum.

Cynorta hassleri, new species

Figure 18

FEMALE.—Total length of body, 4.4 mm. Cephalothorax, 1.5 mm. Width of body at widest point, 3.4 mm.

	I	II
Trochanter	0.4 mm.	0.5 mm.
Femur	2.4	6.3
Patella	0.7	1.1
Tibia	1.6	4.6
Metatarsus	2.8	5.9
Tarsus	1.7	3.6+
Total	9.6 mm.	22.0+ mm.

	III	IV
Trochanter	0.6 mm.	0.6 mm.
Femur	4.2	5.8
Patella	1.0	1.4
Tibia	2.7	3.5
Metatarsus	4.0	6.0
Tarsus	2.2	2.4
Total	14.7 mm.	19.7 mm.

Dorsum finely granulate, a pair of tubercles on the first area, a pair of spines on the third, remaining areas and free tergites unarmed. Eye tubercle normal. Venter and coxae armed only with scattered hairs.

Legs: long, slender, armed with a few hairs. Third and fourth legs of the animal not enlarged over the first and second legs. Tarsal articulations: 6–more than 8–8–9. End group of articulations of both first and second legs, three in number.

Chelicerae normal.

Palpus: trochanter, 0.4 mm. long; femur, 1.3; patella, 0.4; tibia, 1.1; and tarsus, 0.6. Total length, 3.8 mm. Characteristically flattened.

Dorsum reddish brown with an incomplete V at the junction of the cephalothorax and abdomen, a white spot on the lateral margin of the cephalothorax near the region of the second coxae, abdomen with a broken median line and a few small irregular spots at the posterior margin of the first and second areas. Posterior margin of the third area with a transverse line which loops around the spines and joins the median broken line. A white transverse line is on the posterior margin of the fifth area. Spines and tubercles concolorous with dorsum; venter, coxae and chelicerae also concolorous. Palpi and legs yellowish brown, lighter than dorsum.

TYPE LOCALITY.—Female holotype from the lowlands near Aux Cayes, Haiti, August 30, 1935 (W. G. Hassler).

This species differs from previously described species in the dorsal color pattern.

Cynorta limona, new species

Figure 17

MALE.—Total length of body, 5.9 mm. Cephalothorax, 2.0 mm. Width of body at widest point, 5.0 mm.

	I	II
Trochanter	0.5 mm.	0.7 mm.
Femur	3.6	7.2
Patella	1.1	1.4
Tibia	2.3	4.5
Metatarsus	3.6	7.7
Tarsus	2.2	4.3
Total	13.3 mm.	25.8 mm.

	III	IV
Trochanter	0.7 mm.	1.0 mm.
Femur	5.4	7.2
Patella	1.3	1.4
Tibia	2.7	4.5
Metatarsus	4.9	6.8
Tarsus	2.7	3.7
Total	17.7 mm.	24.6 mm.

Dorsum finely granulate, tubercles on the first area and spines on the third area, remaining areas and free tergites unarmed.

Legs: armed with a few scattered hairs and tubercles. Tarsal articulations: 6–12–9–10. End group of articulations of both first and second legs, three in number.

Chelicerae slightly enlarged.

Palpus: trochanter, 0.4 mm. long; femur, 1.4; patella, 0.6; tibia, 1.5; and tarsus, 0.9. Total length, 4.8. Palpus characteristically flattened.

Dorsum light reddish brown with a V marking on the cephalothorax and abdomen which at the lateral margin is enlarged into a reticulate marking. Anterior to this reticulate marking is a large dot; from this V extends a white median line to just posterior of the dorsal spines where it meets a curved transverse line. There is a series of white dots on the abdomen, a pair on the first and second areas midway between the median line and the lateral margin, and also a pair on either side close to the lateral line. There are likewise a few spots on the fourth area and a row of spots on the fifth area and the free tergites. The first two areas are margined with a lighter brown, venter concolorous with dorsum, all appendages yellowish brown, somewhat lighter than the dorsum.

Female.—Total length of body, 5.4 mm. Cephalothorax, 1.8 mm. Width of body at widest point, 4.1 mm.

Identical in appearance with male.

Type Locality.—Male holotype and male and female paratypes from Port Limon, Costa Rica, March 25, 1905 (F. C. Paulmeier).

This species is most closely related to *Cynorta scripta* Simon, differing in the color pattern on the dorsum.

Cynorta sayensis, new species

Figure 21

Male.—Total length of body, 4.9 mm. Cephalothorax, 1.8 mm. Width of body at widest point, 4.2 mm.

	I	II
Trochanter	0.4 mm.	0.4 mm.
Femur	2.3	4.5
Patella	0.8	0.9
Tibia	1.6	3.2
Metatarsus	2.2	4.5
Tarsus	1.4	3.6
Total	8.7 mm.	17.1 mm.

	III	IV
Trochanter	0.5 mm.	0.6 mm.
Femur	3.3	4.5
Patella	0.9	1.1
Tibia	1.9	3.2
Metatarsus	3.3	4.7
Tarsus	1.4	1.8
Total	11.3 mm.	15.9 mm.

Dorsum granulate, median pair of tubercles on the first area, a pair of small spines on the third. Remaining areas and free tergites without median spines or tubercles. Free tergites with rows of small tubercles. Eye tubercle normal, venter and coxae with numerous small tubercles.

Legs: armed with a few tubercles and hairs, the distal portion of the ventral margin of the fourth femur with a row of seven large tooth-like projections, the dorsal margin armed with a similar row. Third and fourth leg not heavier than the first and second. Tarsal articulations: 6–13–7–8. End group of articulations of both first and second legs, 3.

Chelicerae normal.

Palpus: trochanter, 0.4 mm. long; femur, 1.1; patella, 0.5; tibia, 1.4; and tarsus, 0.6. Total length, 4.0 mm. Palpus characteristically flattened.

Dorsum entirely reddish brown with a median line and the first and second dorsal areas faintly outlined by being slightly lighter in color. Paired spines and tubercles darker. A small white spot located midway between the median line and the lateral margin, between the third and fourth areas. Venter and coxae concolorous with dorsum, all appendages yellowish brown, somewhat lighter.

Type Locality.—Male holotype from West Say, New Providence, Bahamas, May 29, 1904.

This form differs from other described species of *Cynorta* in the dorsal color pattern.

Cynortoides cubana (Banks)

Cynorta cubana Banks, 1909, Rep. Exper. Sta. Cuba, II, p. 169.—*Cynortoides cubana* Roewer, 1912, Arch. Naturg., LXXVIIIA, fasc. 10, p. 62. —Roewer, 1923, Die Weberknechte der Erde, p. 335, Fig. 379.—*Cynorta cubana* Soerensen, 1932, Det. Kongelige Danske Videns. Selskabs Skrifter., IX, p. 406.

Record.—Five miles north of Baños, Cuba, May, 1910 (Barnum Brown).

Cynortoides haitiensis Roewer

Figure 27

Cynortoides haitiensis Roewer, 1912, Arch. Naturg., LXXVIIIA, fasc. 10, p. 62, Fig. 11.—Roewer, 1923, Die Weberknechte der Erde, p. 336, Fig. 380.—*Cynorta V-album* Soerensen, 1932, Det. Kongelige Danske Videns. Selskabs Skrifter., IX, p. 402.

Record.—Villa Haitiensis, June 19, 1915 (F. E. Lutz), and Petionville, Haiti, January 26, 1932 (F. E. Watson).

Cynortoides marginata, new species

Figure 25

Female.—Total length of body, 4.6 mm. Cephalothorax, 1.7 mm. Width of body at widest point, 4.0 mm.

	I	II
Trochanter	0.5 mm.	0.6 mm.
Femur	2.0	3.9
Patella	0.7	1.2
Tibia	1.4	2.9
Metatarsus	1.9	3.9
Tarsus	1.1	2.9
Total	7.6 mm.	15.4 mm.

	III	IV
Trochanter	0.6 mm.	0.6 mm.
Femur	3.1	3.8
Patella	1.0	1.2
Tibia	1.8	2.6
Metatarsus	2.6	4.0
Tarsus	1.6	1.9
Total	10.7 mm.	14.1 mm.

Dorsum finely granulate, paired tubercles on the first area, paired spines on the third and fourth areas. Remaining dorsal areas and free tergites without median spines or tubercles. The posterior margin of the fifth area and free tergites with rows of small tubercles. Venter and coxae armed with a few tubercles and hairs.

Legs: likewise armed with tubercles and scattered hairs. Tarsal articulations: 6–13–7–8. End group of articulations of both first and second legs, three in number.

Chelicerae normal.

Palpus: trochanter, 0.6 mm. long; femur, 1.0; patella, 0.6; tibia, 1.0; and tarsus, 0.5. Total length, 3.7 mm. Palpus characteristically flattened.

Dorsum reddish brown with a white V marking between the cephalothorax and the abdomen, a median white line on the first three areas, separated into three parts by the area divisions. This median line meets a white transverse line on the posterior margin of the third area. A white line is present on the posterior margins of areas I and II. Venter, coxae, chelicerae, palpi and legs yellowish brown, lighter than the dorsum.

Type Locality.—Female holotype from Dominican Republic (F. E. Lutz).

This species differ from other *Cynortoides* in the color pattern on the dorsal scute.

Cynortoides quadrispinosa, new species

Figure 22

Female.—Total length, 5.2 mm. Cephalothorax, 1.7 mm. Width of body at widest point, 4.4 mm.

	I	II
Trochanter	0.6 mm.	0.7 mm.
Femur	2.4	5.1
Patella	0.8	1.3
Tibia	1.6	3.9
Metatarsus	2.4	5.1
Tarsus	2.0	4.1
Total	9.8 mm.	20.2 mm.

	III	IV
Trochanter	0.7 mm.	0.9 mm.
Femur	3.7	5.0
Patella	1.2	1.4
Tibia	2.2	3.2
Metatarsus	3.4	5.0
Tarsus	2.0	2.5
Total	13.2 mm.	18.0 mm.

Dorsum finely granulate, paired tubercles on the first area, paired spines on the third and fourth areas. Remaining dorsal areas and free tergites without median spines or tubercles. The posterior margin of the fifth area and free tergites with rows of small tubercles. Venter and coxae armed with a few tubercles and hairs.

Legs: armed with tubercles and scattered hairs. The tubercles are especially prominent on the fourth leg. Ventral margin of the fourth femur having a row of larger tubercles. Tarsal articulations: 6–14–7–8. End group of articulations of both first and second legs, three in number.

Chelicerae slightly enlarged.

Palpus: trochanter, 0.7 mm. long; femur, 1.5; patella, 1.0; tibia, 1.4; and tarsus, 0.7. Total length, 5.3 mm. Palpus characteristically flattened.

Dorsum reddish brown with a white V marking between the cephalothorax and the abdomen, a median white line on the first three areas, separated into three parts by the area divisions. This median line meets a white transverse line on the posterior margin of the third area. There are two white flecks on either side of the dorsum, one at the posterior margin of the first area midway between the median line and the lateral margin; and a second white fleck similarly situated but at the posterior margin of the second area. Venter, coxae, chelicerae, palpi and legs yellowish brown, lighter than the dorsum.

TYPE LOCALITY.—Female holotype and female paratypes from Port Antonio, Jamaica, March 29, 1935 (F. Miller).

This species differs in color pattern from *Cynortoides haitiensis* Roewer, to which it is closely related.

Cynortula garna, new species

Figure 13

FEMALE.—Total length of body, 4.2 mm. Cephalothorax, 1.4 mm. Width of body at widest portion, 3.4 mm.

	I	II
Trochanter	0.4 mm.	0.5 mm.
Femur	2.0	3.9
Patella	0.7	1.0
Tibia	1.4	3.1
Metatarsus	2.1	3.2
Tarsus	1.2	3.2
Total	7.8 mm.	14.9 mm.

	III	IV
Trochanter	0.5 mm.	0.4 mm.
Femur	3.3	3.9
Patella	1.0	1.3
Tibia	1.9	2.6
Metatarsus	3.0	4.1
Tarsus	1.4	1.6
Total	11.1 mm.	13.9 mm.

First and third areas with a median pair of tubercles, remaining areas and free tergites of the abdomen without median tubercles or spines. The entire surface of the dorsum of the abdomen including the five areas and the free tergites irregularly covered with numerous low tubercles, which are absent only on the very lateral margins. Eye tubercle normal. Venter and coxae armed with a few scattered hairs.

Legs: armed with scattered hairs, and on the femur, patella and tibia rows of very small tubercles which on the inner margin of the distal portion of the fourth femur enlarge into a row of from 5–7 teeth-like projections. There are other rows of larger tubercles present at the distal end of the femur, but not so large as the one row. Third and fourth legs not conspicuously heavier than the first and second. Tarsal articulations: 6–13–7–7. End group of articulations of both first and second legs, three in number.

Chelicerae normal.

Palpus: trochanter, 0.4 mm. long; femur, 0.9; patella, 0.5; tibia, 1.0; and tarsus, 0.4. Total length, 3.2 mm. Palpus normal.

Dorsum light reddish brown, with some darker mottlings on the cephalothorax, lighter brown markings are present on the posterior margin of the first, second, fourth and fifth areas; a white line present on the posterior margin of the third. Tubercles of the third area tipped with white. Venter and coxae concolorous with dorsum, appendages yellowish brown, lighter than the dorsum.

TYPE LOCALITY.—Female holotype and female paratypes from Andros Island, Bahamas, May 23, 1904.

This animal is closely related to *Cynortula striata* Roewer but has a distinctly different pattern upon the dorsum.

Cynortula zaca, new species

Figure 24

MALE.—Total length of body, 7.9 mm. Cephalothorax, 2.4 mm. Width of body at widest portion, 6.8 mm.

	I	II
Trochanter	0.7 mm.	0.9 mm.
Femur	4.1	6.8
Patella	1.3	1.6
Tibia	2.3	5.1
Metatarsus	3.2	6.6
Tarsus	2.2	3.5
Total	13.8 mm.	24.5 mm.

	III	IV
Trochanter	0.9 mm.	1.2 mm.
Femur	5.1	6.9
Patella	1.8	2.2
Tibia	3.2	4.7
Metatarsus	5.0	5.0
Tarsus	1.9	1.9
Total	17.9 mm.	21.9 mm.

Dorsum finely granulate, first and third areas with a pair of tubercles; in one specimen, a male, the tubercles of the third area are almost spinose, in the females, normal. Second, fourth and fifth areas and free tergites unarmed. The posterior margin of the free tergites decorated with rows of tubercles. Eye tubercle normal, unarmed. Venter and coxae armed with scattered tubercles and a few small hairs.

Legs: armed with scattered tubercles, which on the fourth femur are somewhat larger in the posterior median row. Trochanters unarmed except the fourth which has a spur on the distal posterior margin. The dorsal portion of the fourth coxae projects as a slight spur over the anterior part of the fourth trochanter. Third

and fourth legs not conspicuously enlarged over the first and second. Tarsal articulations: 6–10–7–7. End group of articulations of both first and second legs, three in number.

Chelicerae normal.

Palpus: trochanter, 0.8 mm. long; femur, 1.3; patella, 1.3; tibia, 1.4; and tarsus, 0.1. Total length, 4.8 mm. Palpus characteristically flattened.

Color of dorsum reddish brown, with slightly darker mottlings on the cephalothorax and the lateral margins of the abdomen. Eye tubercle concolorous. Yellowish white markings appear as follows: irregular markings on the lateral margin at the junction of the cephalothorax and abdomen; from this lateral white marking, a narrow V margins the cephalothorax. From the junction of the two sides of the V, a narrow white continuous line extends to the posterior line of the third area where it joins a slightly curved transverse line, which extends completely across the dorsum. An irregular white marking is present on the lateral fourth of the posterior margin of the fourth area. There are a few irregular markings on the lateral margin of the dorsum, and a very small irregular white marking on the median portion of the first area, this mark more more prominent on the right side than on the left. Venter, coxae, chelicerae, palpi, except tarsus, reddish brown, only slightly lighter than the dorsum. Legs and tarsus of palpus yellowish brown.

FEMALE.—Total length, 7.7 mm. Cephalothorax, 1.8 mm. Width of body at widest point, 5.6 mm.

Fourth femur slightly less tuberculate than in the male. Varied in color markings as follows: the anterior V is incomplete, and the line at the posterior margin of the fourth area is reduced to only a third of the distance across the dorsum, and the markings bounding the fourth area are lacking entirely. The dorsum is a darker brown, and the spur on the fourth trochanter is reduced.

TYPE LOCALITY.—Male holotype and female allotype from Port Parke, Elena Bay, Costa Rica, January 19, 1938 (Zaca Expedition). Collected under bark.

This species is related to *Cynortula granulata* Roewer but differs in the arrangement of the dorsal color pattern, especially the markings on the posterior part of the dorsum.

Eucynorta analis Roewer

Eucynorta analis ROEWER, 1928, Abh. Naturw. Ver. Bremen, XXVI, p. 585, Fig. 26.

RECORD.—El Volcan, Chiriqui, Panama, March 7, 1936 (W. J. Gertsch).

Eucynorta tristani (Banks)

Cynorta tristani BANKS, 1909, P. Acad. Nat. Sci. Philadelphia, LXI, p. 227.—*Eucynorta tristani* ROEWER, 1912, Arch. Naturg., LXXVIIIA, fasc. 10, p. 56.—ROEWER, 1923, Die Weberknechte der Erde, p. 330, Fig. 371.

RECORD.—Port Limon, Costa Rica, March 25, 1905 (F. C. Paulmeier).

Eucynortella longa, new species

Figure 23

FEMALE.—Total length of body, 6.5 mm. Cephalothorax, 2.2 mm. Width of body at widest point, 4.4 mm.

	I	II
Trochanter	0.4 mm.	0.4 mm.
Femur	2.2	4.5
Patella	0.6	0.7
Tibia	1.8	3.6
Metatarsus	2.7	4.5
Tarsus	2.0	5.4
Total	9.7 mm.	19.1 mm.

	III	IV
Trochanter	0.5 mm.	0.7 mm.
Femur	2.6	4.7
Patella	0.9	1.3
Tibia	2.7	3.6
Metatarsus	3.6	5.1
Tarsus	2.3	2.9
Total	12.6 mm.	18.3 mm.

Dorsum finely granulate, eye tubercle normal. All dorsal areas and free tergites unarmed. Venter and coxae armed only with a few very small scattered hairs.

Legs: also armed with scattered hairs. Third and fourth legs not conspicuously enlarged over the first and second. Tarsal articulations: 6–14–7–8. End group of articulations of both first and second legs, three in number.

Chelicerae normal.

Palpus: trochanter, 0.4 mm. long; femur, 1.5; patella, 1.1; tibia, 1.4; and tarsus, 0.9. Total length, 5.3 mm. Characteristically flattened.

Dorsum dark reddish brown with a lighter brown stripe from the anterior to the posterior margin of the cephalothorax, passing through and including the eye tubercle. White markings as follows: a complete V at the junction of the cephalothorax and abdomen, which on the lateral margin of the cephalothorax and anterior part of the first abdominal area enlarges into a large irregular spot. A median white line occurs, extending from the V to the posterior margin of the third area; this line is broken into three distinct parts; a curved transverse line on the posterior margin of the third area. The posterior margin of the fifth area is bounded by a white line. A light brown marking in the median portion separates the fourth and fifth areas. Venter and appendages yellowish brown, somewhat lighter than the dorsum.

TYPE LOCALITY.—Female holotype from Casita Alta, Chiriqui, Panama, January 16, 1940 (G. C. Wood).

This species differs from other species of *Eucynortella* in the dorsal color pattern.

Eucynortella panamensis, new species

Figure 28

FEMALE.—Total length of body, 4.3 mm. Cephalothorax, 1.3 mm. Width of body at widest point, 3.2 mm.

	I	II
Trochanter	0.4 mm.	0.4 mm.
Femur	2.0	3.8
Patella	0.6	—
Tibia	1.4	—
Metatarsus	2.2	—
Tarsus	1.5	—
Total	8.1 mm.	—

	III	IV
Trochanter	0.4 mm.	0.4 mm.
Femur	2.9	3.8
Patella	0.7	0.8
Tibia	1.4	2.1
Metatarsus	3.1	4.5
Tarsus	1.7	1.9
Total	10.2 mm.	13.5 mm.

Dorsal areas and all free tergites unarmed. Entire dorsum quite smooth, venter and coxae unarmed.

Legs: armed only with a few scattered hairs. Third and fourth legs not conspicuously enlarged over the first and second. Tarsal articulations: 6–?–7–8. End group of articulations of both first and second legs, three in number.

Chelicerae normal.

Palpus: trochanter, 0.3 mm. long; femur, 0.9; patella, 0.6; tibia, 0.9; and tarsus, ?. Palpus normal, characteristically flattened.

Dorsum dark reddish brown with a conspicuous white V on the posterior portion of the cephalothorax. Where it meets the median line of the abdomen, there is a small white mark, but otherwise the median line is not outlined. On the posterior portion of the third area, there is a bow-shaped broken white line, broken into about four parts on either side. On the first and second areas as on both sides, there is a white dot midway between the median line and the lateral margin. Venter, coxae, chelicerae and palpi concolorous with the dorsum. Legs somewhat lighter.

TYPE LOCALITY.—Female holotype from Casita Alta, Chiriqui, Panama, January 16, 1940 (G. C. Wood).

This species differs from other species of *Eucynortella* in the color pattern on the dorsum.

Eucynortella sexpunctata Roewer

Eucynortella sexpunctata ROEWER, 1928, Abh. Naturw. Ver. Bremen, XXVI, p. 579, Fig. 23.

RECORD.—El Volcan, Chiriqui, Panama, February 18, 1936 (W. J. Gertsch).

Eucynortella woodi, new species

Figure 26

FEMALE.—Total length of body, 3.6 mm. Cephalothorax, 1.2 mm. Width of body at widest portion, 2.8 mm.

	I	II
Trochanter	0.4 mm.	0.4 mm.
Femur	1.9	3.6
Patella	0.4	0.6
Tibia	1.3	2.9
Metatarsus	2.2	3.9
Tarsus	1.1	3.0
Total	7.3 mm.	14.4 mm.

	III	IV
Trochanter	0.4 mm.	0.4 mm.
Femur	2.8	3.9
Patella	0.7	0.8
Tibia	1.6	2.2
Metatarsus	2.8	4.5
Tarsus	1.6	1.1
Total	9.9 mm.	12.9 mm.

Body elongate, smooth, eye tubercle normal, unarmed, entire dorsum, free tergites and free sternites unarmed. Venter and coxae unarmed.

Legs: armed with only a few scattered hairs. Third and fourth legs not enlarged over the first and second. Tarsal articulations: 6–11–7–7. End group of articulations of both first and second legs, three in number.

Chelicerae normal.

Palpus: trochanter, 0.4 mm. long; femur, 0.9 mm.; patella, 0.7; tibia, 1.0; and tarsus, 0.4. Total length, 3.4 mm. Palpus characteristically flattened.

Color of dorsum reddish brown, with lighter brown mottlings on the lateral margin and on the cephalothorax. White markings as follows: a bright conspicuous V at the junction of the cephalothorax and abdomen, an irregular broken median line from the V to the third area where it meets a divided transverse line at the posterior part of the third area. A yellowish white dot on either side on the fourth area. The posterior margins of the free tergites have a thin white line. Venter, coxae, palpus and chelicerae concolorous with dorsum. Legs yellowish brown, somewhat lighter.

TYPE LOCALITY.—Female holotype from Casita Alta, Chiriqui, Panama, January 16, 1940 (G. C. Wood).

Kevonones irazus, new species

Figure 34

FEMALE.—Total length of body, 4.7 mm. Cephalothorax, 1.5 mm. Width of body at widest point, 3.3 mm.

	I	II
Trochanter	0.3 mm.	0.5 mm.
Femur	1.6	2.7
Patella	0.4	0.7
Tibia	1.3	2.3
Metatarsus	1.8	2.7
Tarsus	1.5	2.3
Total	6.9 mm.	11.2 mm.

	III	IV
Trochanter	0.5 mm.	0.6 mm.
Femur	2.2	2.7
Patella	0.9	0.9
Tibia	1.5	2.1
Metatarsus	2.2	3.2
Tarsus	1.6	1.8
Total	8.9 mm.	11.3 mm.

Dorsum finely granulate, subtruncate caudad, all five dorsal areas and free tergites without tubercles or spines. Eye tubercle normal. Venter and coxae armed only with a few small scattered hairs.

Legs: armed with a few minute scattered hairs. Third and fourth legs not enlarged over the first and second. Tarsal articulations: 5–7–6–6. End group of articulations of both first and second legs, three in number.

Chelicerae normal.

Palpus: trochanter, 0.3 mm. long; femur, 1.1; patella, 0.6; tibia, 0.9; and tarsus, 0.6. Total length, 3.5 mm. Palpus normal, characteristically flattened.

Dorsum light reddish brown, somewhat darker on the lateral margins. First three dorsal areas are outlined by lighter brown markings. There are two lighter, indistinct light markings on either side of the first area, a larger indistinct lighter spot on either side of the second area and a small spot and dot on the third area. A lighter median line runs from the anterior margin of the first area to the posterior margin of the third area where it meets an irregularly curved transverse line which is light enough to be considered white, at least in certain portions. A narrow white line runs along the posterior margin of the fifth area and the first free tergite. Cephalothorax is somewhat lighter in color than the abdomen. Venter and coxae concolorous with the dorsum. All appendages yellowish brown, lighter than the dorsum. On the tibia and metatarsus of the leg, the light yellowish brown is ringed with darker brown markings.

TYPE LOCALITY.—Female holotype from Iraza, Costa Rica, March 21, 1905 (F. C. Paulmeier).

This species differs from *Kevonones mexicanus* (Banks) in the dorsal markings.

Metacynortoides bilineata, new species

Figure 29

FEMALE.—Total length of body, 4.1 mm. Cephalothorax, 1.6 mm. Width of body at widest point, 3.4 mm.

	I	II
Trochanter	0.4 mm.	0.6 mm.
Femur	2.2	5.4
Patella	0.7	1.1
Tibia	1.5	3.6
Metatarsus	2.5	5.0
Tarsus	1.8	3.6
Total	9.1 mm.	19.3 mm.

	III	IV
Trochanter	0.6 mm.	0.7 mm.
Femur	3.6	5.0
Patella	1.0	1.1
Tibia	2.1	2.7
Metatarsus	3.4	5.1
Tarsus	2.2	2.7
Total	12.9 mm.	17.3 mm.

Dorsum finely granulate, a pair of median tubercles on the first and second areas; a pair of large spines on the third, and a pair of small spines on the fourth. Eye tubercle normal, unarmed, venter and coxae armed only with a few scattered hairs.

Legs: armed with a few scattered hairs; rows of low tubercles on the femur and tibia of the third and fourth legs. Tarsal articulations: 6–15–8–9. End group of articulations of both first and second legs, three in number.

Chelicerae: slightly enlarged, extending above the palpus.

Palpus: trochanter, 0.5 mm. long; femur, 1.0; patella, 0.5; tibia, 0.9; and tarsus, 0.6. Total length, 3.5 mm. Palpus normal.

Dorsum reddish brown, spines and tubercles concolorous; eye tubercle also concolorous. There is a complex white color pattern on the dorsum arranged as follows: posterior margin of the cephalothorax etched in white which divides in a double line as it proceeds anteriorly, terminating in a white mark in the region of the second trochanter. An irregular, broken double median line proceeds the entire length of the five areas. In the first area, midway between the median line and the lateral margin, is a curved double mark; there is likewise a small white dot on either side of the first area near the tubercle. The second area has a white mark on either side midway between the median line and the lateral margin. The third area is bounded posteriorly by a double-curved irregular line which, midway between the median line and the lateral margin, merges into a curved double mark which extends across the middle half of the fourth area. Venter, coxae and chelicerae con-

colorous with the dorsum. Palpus and legs yellowish, lighter. The metatarsi of the legs darker, having numerous false articulations which give them the appearance of being ringed with narrow lighter lines.

TYPE LOCALITY.—Female holotype and paratype from Sanchez, Dominican Republic, June 9, 1915 (F. E. Lutz).

This species differs from other species of *Metacynortoides* in having a very distinctive color pattern on the dorsum.

Metacynortoides obscura (Banks)

Cynorta obscura BANKS, 1901, Proc. United States Nat. Mus., XXIV, p. 226, Pl. xv, fig. 5.—BANKS, 1903, Proc. Acad. Nat. Sci. Philadelphia, LV, p. 352.—*Metacynortoides obscura* ROEWER, Arch. Naturg., LXXVIIIA, fasc. 10, p. 66.—ROEWER, 1923, Die Weberknechte der Erde, p. 338.

RECORD.—Between Arecibo and Uduado, Puerto Rico, March 13, 1906; Aibonito, Puerto Rico, June 24, 1914; and St. Johns, Virgin Island, March 9, 1925.

Metacynortoides romanus, new species

Figure 32

FEMALE.—Total length of body, 4.6 mm. Cephalothorax, 1.6 mm. Width of body at widest portion, 4.1 mm.

	I	II
Trochanter	0.4 mm.	0.5 mm.
Femur	2.2	4.5
Patella	0.6	0.9
Tibia	1.8	3.6
Metatarsus	2.7	5.4
Tarsus	1.7	3.6
Total	9.4 mm.	18.5 mm.
	III	IV
Trochanter	0.6 mm.	0.8 mm.
Femur	2.9	4.5
Patella	0.8	0.9
Tibia	1.8	2.7
Metatarsus	3.6	4.7
Tarsus	2.2	2.4
Total	11.9 mm.	16.0 mm.

Dorsum finely granulate, a pair of tubercles on the first and second areas, a pair of small spines on the third and fourth areas. Fifth area and free tergites without median tubercles or spines. A row of small tubercles across each free tergite and the fifth area. Eye tubercle low, normal. Venter and coxae granulate.

Legs: armed with a few scattered tubercles and small hairs. Third and fourth legs not enlarged over the first and second. Tarsal articulations: 6–15–9–9. End group of articulations of both first and second legs, three in number.

Chelicerae: second joint somewhat enlarged.

Palpus: trochanter, 0.4 mm. long; femur, 1.3; patella, 0.6; tibia, 1.3; and tarsus, 0.5. Total length, 4.1 mm. Palpus normal, characteristically flattened.

Dorsum reddish brown with a white V between the cephalothorax and the abdomen, and a wide white line running transversely across the posterior portion of the third area and the anterior part of the fourth. The first and second areas and median line are conspicuous by being a lighter brown but have only a small fleck of white on both sides between the first and second areas midway between the median line and the lateral margin and a few flecks of white near the anterior portion of the lighter median line of the abdomen. A small fleck of white between the spines of the fourth area. Venter and coxae concolorous with dorsum. Appendages yellowish brown, somewhat lighter than the dorsum.

TYPE LOCALITY.—Female holotype and immature paratype from La Romana, Dominican Republic.

This animal differs from other species of *Metacynortoides* in having a different dorsal color pattern.

Metacynortoides transversalis, new species

Figure 31

FEMALE.—Total length of body, 5.76 mm. Cephalothorax, 1.5 mm. Width of body at widest point, 4.3 mm.

	I	II
Trochanter	0.4 mm.	0.5 mm.
Femur	2.2	4.3
Patella	0.7	1.2
Tibia	1.6	3.2
Metatarsus	2.4	4.8
Tarsus	1.5	4.0
Total	8.8 mm.	18.0 mm.
	III	IV
Trochanter	0.5 mm.	0.8 mm.
Femur	3.3	4.5
Patella	1.2	1.3
Tibia	1.8	2.9
Metatarsus	3.2	4.5
Tarsus	2.0	2.3
Total	12.0 mm.	16.3 mm.

Dorsum slightly granulate, a median pair of tubercles present on the first and second areas. A small spine present on the third area. A pair of large spines on the fourth area; fifth area and free tergites unbedecked. Eye tubercle normal. Venter and coxae armed with scattered hairs, slightly tuberculate. On the posterior margin of the free tergites are rows of very low tubercles.

Legs: armed with a few hairs and tubercles. Third and fourth legs not heavier than the first

and second. Tarsal articulations: 6–15–8–9. End group of articulations of both first and second legs, three in number.

Chelicerae normal.

Palpus: trochanter, 0.3 mm. long; femur, 1.2; patella, 0.3; tibia, 1.0; and tarsus, 0.5. Total length, 3.3 mm. Palpus normal.

Dorsum reddish brown with brown markings separating the areas and in the median line. White markings as follows: a white V mark between the cephalothorax and the abdomen, a broad white transverse line posterior to the margin of the third area, a few flecks of white on the median line, and a small fleck of white on either side between the median line and the lateral margin. Venter and coxae concolorous with dorsum. All appendages yellowish brown, lighter than the dorsum.

TYPE LOCALITY.—Female holotype from near La Romana, Dominican Republic, July 31, 1935 (W. G. Hassler).

This species differs from other species of *Metacynortoides* in the arrangement of the dorsal color pattern.

Neocynortoides dorsalis Roewer

Neocynortoides dorsalis ROEWER, 1916, Arch. Naturg., LXXXIA, fasc. 12, p. 10, Fig. 3.—ROEWER, 1923, Die Weberknechte der Erde, p. 340.

RECORD.—Mandios, Puerto Rico, March 17, 1906 (W. M. Wheeler); Aibonito, Puerto Rico, June 24, 1914; Culebra, Virgin Island, March 6, 1906; Malverna, Jamaica, April, 1905 (F. C. Paulmeier).

Vonones planus, new species

Figure 30

MALE.—Total length of body, 4.1 mm. Cephalothorax, 1.5 mm. Width of body at widest portion, 3.6 mm.

	I	II
Trochanter	0.4 mm.	0.4 mm.
Femur	2.0	4.3
Patella	0.6	1.1
Tibia	1.4	3.2
Metatarsus	2.2	3.9
Tarsus	1.4	2.5
Total	8.0 mm.	15.4 mm.

	III	IV
Trochanter	0.5 mm.	0.7 mm.
Femur	2.9	3.6
Patella	0.9	1.1
Tibia	1.6	2.3
Metatarsus	3.2	4.4
Tarsus	1.4	1.8
Total	10.5 mm.	13.9 mm.

Dorsum finely granulate, first, second, third and fourth areas with paired median spines, the spines of the fourth area being conspicuously larger than the preceding ones. Free tergites unarmed except for a few very fine tubercles on the third free tergite. Eye tubercle normal, very low; venter and coxae finely granulate.

Legs: armed with scattered hairs; on the femur of the fourth leg, a series of six spinose tubercles on the distal anterior margin. Third and fourth legs not conspicuously enlarged over the first and second. Tarsal articulations: 5–10–7–7. End group of articulations of both first and second legs, three in number.

Chelicerae slightly elevated and enlarged.

Palpus: trochanter, 0.4 mm. long; femur, 1.2; patella, 0.5; tibia, 1.4; and tarsus, 0.6. Total length, 4.1 mm. Palpus normal.

Entire animal, except for the legs, reddish brown with a very small penciling of white on the distal lateral margin of the fifth area; this penciling is lacking in many of the paratypes. A lighter brown median line on the dorsum. Legs yellowish brown, lighter, except for the basal segments of the fourth legs which are concolorous with the dorsum.

FEMALE.—Total length of body, 4.3 mm. Cephalothorax, 1.5 mm. Width of body at widest portion, 3.6 mm.

Identical with the male in appearance, except for the lack of the slight enlargement of the chelicerae and the larger spines of the fourth leg.

TYPE LOCALITY.—Male holotype and male and female paratypes from Roseau, Dominica, British West Indies, June, 1911.

This species differs from other species of *Vonones* in the dorsal pattern.

GONYLEPTIDAE Sundevall

Gonyleptinae Simon

ROOMA, NEW GENUS

Dorsal scute consisting of four areas, areas unarmed, eye tubercle unarmed, only slightly tuberculate. Second and third free tergites with a median spine. Remaining free tergites unarmed. Lateral margin of fourth coxae widened laterally. Tarsal joints: 5–more than 6–6–6. End group of articulations of both first and second legs, three in number. Third and fourth tarsal claws simple.

GENOTYPE.—*Rooma caudaspina*, new species.

This genus is related to *Diplocaldasius* Mello-Leitao, *Caldasius* Roewer, *Caldasiella* Mello-Leitao and *Nigoleptes* Mello-Leitao; differing, however, in having five instead of six joints in the first tarsus and six in the third and fourth tarsi instead of more than six.

Rooma caudaspina, new species

Figure 35

MALE.—Total length of body, 5.9 mm., plus the spine of the third free tergite which is 1.8 mm. long. Cephalothorax, 1.8 mm. Width of body at widest portion, 5.1 mm.

	I	II
Trochanter	0.5 mm.	0.6 mm.
Femur	1.8	3.3
Patella	0.7	0.7
Tibia	1.3	2.2
Metatarsus	2.2	2.7
Tarsus	1.3	2.8
Total	7.8 mm.	12.3 mm.

	III	IV
Trochanter	0.7 mm.	0.9 mm.
Femur	2.6	2.7
Patella	0.9	1.4
Tibia	1.6	2.4
Metatarsus	3.3	3.4
Tarsus	1.4	1.4
Total	10.5 mm.	12.2 mm.

Dorsum smooth, eye tubercle normal, smooth except for a few slight granulations. Anterior margin of the cephalothorax with three small spines on either side, midway between the lateral margin and the median line. Posterior margin of the fourth area and the free tergites with a few small tubercles. A short spine on the median line of the second free tergite. Median spine of the third free tergite long and stout. Venter and coxae armed only with a few scattered hairs and low tubercles.

Legs: first to third trochanters unarmed. Fourth trochanter armed with two spines on the posterior margin. Remaining portions of legs armed with tubercles and scattered hairs. On the fourth leg these tubercles reach spinous proportions as follows: on the anterior margin of the femur, a row of larger tubercles; on the posterior margin, a long acute spine. Patella with some larger tubercles on the posterior margin, and the tibia with a row of four spinous tubercles on the posterior margin, the distal spine being elongated to three times the length of the proximal two. Tarsal articulations: 5–8–6–6. End group of articulations of both first and second legs, three in number.

Chelicerae normal.

Palpus: trochanter, 0.3 mm. long; femur, 1.1; patella, 0.6; tibia, 0.7; and tarsus, 0.6. Total length, 3.3 mm. Palpus characteristically rounded, the tibia armed ventrally with two large and two small spine-bearing tubercles on either side, the smaller and larger spines alternating with each other; tarsus similarly armed.

Color of entire animal yellowish brown with an indistinct median line and with the same type of indistinct line outlining the median portion of the areas. A few indistinct spots on either side of the median line, these markings being so indistinct as to be only vaguely discernible. Spines somewhat lighter in color.

FEMALE.—Total length of body, 6.1 mm. Cephalothorax, 1.8 mm. Width of body at widest portion, 4.5 mm.

Similar in appearance to male, but darker and with the spines greatly reduced; the median spines of the free tergites merely being present as robust tubercles, only slightly larger than the median bounding tubercles of the third area. Spines of the fourth leg entirely lacking, only low tubercles present. The spur of the fourth coxae extending over the fourth trochanter very reduced.

TYPE LOCALITY.—Male holotype and male and female paratypes from Port Limon, Costa Rica, March 25, 1905 (F. C. Paulmeier).

Heterostygninae Roewer

PARASTYGNOPLUS, NEW GENUS

Animal lacking eye tubercle, four distinct areas on the dorsal scute, a median robust spine on the cephalothorax. A pair of large spines on the third area, a pair of median tubercles on the first area. Remaining segments and free tergites lacking median paired tubercles or spines. Tarsal articulations: first tarsus, six, remaining tarsi, more than 6. End group of articulations of first and second tarsi, three in number. Scopula present on the distal end of the third and fourth tarsi, double claws toothed.

GENOTYPE.—*Parastygnoplus tuberculatus*, new species.

This genus differs from *Stygnoplus* Simon in having median paired tubercles on the first area and differs from *Pseudostygnoplus* Goodnight and Goodnight by having only six segments on the first tarsus.

Parastygnoplus tuberculatus, new species

Figure 38

MALE.—Total length of body, 5.2 mm. Cephalothorax, 1.8 mm. Width of body at widest point, 3.7 mm.

	I	II
Trochanter	0.6 mm.	0.8 mm.
Femur	3.3	6.7
Patella	0.9	1.4
Tibia	1.9	4.9
Metatarsus	3.7	5.2
Tarsus	1.8	5.0
Total	12.2 mm.	24.0 mm.

	III	IV
Trochanter	1.0 mm.	1.3 mm.
Femur	5.7	7.0
Patella	1.5	1.7
Tibia	2.9	3.8
Metatarsus	5.0	7.2
Tarsus	2.1	3.3
Total	18.2 mm.	24.3 mm.

Dorsal scute and cephalothorax rectangular in shape. Cephalothorax lacking an eye tubercle, eyes widely separated, an acute, heavy, median spine present. Anterior margin of the cephalothorax straight, with a small median tubercle, two somewhat larger projections on the anterior lateral margin and a larger spinose projection midway between the median line and the lateral margin. First area with a pair of median tubercles, second area without median tubercles, but with two tubercles on either side of the median line. The larger third area with a pair of heavy spines which slant slightly away from each other. In addition to these spines, there are a pair of small tubercles on either side of the median line, just anterior to the spines. A similar arrangement of four tubercles posterior. On the narrow fourth area, there is a row of three small tubercles in the median portion. On the first free tergite there are a pair of tubercles, on either side of the median line. On the second free tergite there are a similar pair of tubercles and in addition there is another tubercle on either side, arranged midway between the more median tubercle and the lateral line. The third free tergite has a row of three tubercles in the median portion. Free sternites with rows of tiny tubercles; coxae with a few low tubercles and hairs.

Legs: armed with scattered hairs and tubercles on the femora. These tubercles are slightly enlarged on the third femur and on the anterior distal margin of the fourth femur are enlarged into a row of small teeth. Tarsal articulations: 6–20–8–8. End group of articulations of both first and second legs, three in number.

Chelicerae very slightly enlarged.

Palpus: trochanter, 0.7 mm. long; femur, 3.6; patella, 1.8; tibia, 2.0; and tarsus, 1.9. Total length, 10.0 mm. Palpus characteristically long and slender, femur straight, armed with a few tubercles on the ventral side; patella very slender, slightly enlarged distally where it is joined to the wedge-shaped tibia. The tibia is armed ventrally by five spine-bearing tubercles on either side. The tarsus is armed ventrally on either side by three large and two small spine-bearing tubercles, tipped with a long curved claw.

Dorsum reddish brown, spines of the third area and that of the cephalothorax dark brown. Cephalothorax mottled with darker brown. Venter, coxae, third and fourth legs and chelicerae concolorous with the dorsum. First and second legs, palpi, yellowish brown, lighter.

TYPE LOCALITY.—Male holotype from "Long Ditton" near Roseau, Dominica, British West Indies, June 20, 1911 (F. E. Lutz).

Prostygninae Roewer

KALUGA, NEW GENUS

Dorsum with five areas, a median spine on the second free tergite, remaining free tergites and dorsal areas unarmed. A pair of spines on the eye tubercle; lateral margin of the fourth coxae not widened laterally. First area without a median line. Tarsal articulations: 6–more than 6–?–6. End group of articulations of both first and second legs, three in number.

GENOTYPE.—*Kaluga elongata*, new species.

This genus is related to *Peladoius* Roewer but differs in having spines over the eyes and in lacking the two spines on the third free tergite.

Kaluga elongata, new species

Figure 33

FEMALE.—Total length of body, 7.0 mm. Cephalothorax, 1.8 mm. Width of body at widest point, 5.0 mm.

	I	II	IV
Trochanter	0.6 mm.	0.6 mm.	0.9 mm.
Femur	1.8	3.6	4.0
Patella	0.9	1.1	1.4
Tibia	1.4	2.7	3.6
Metatarsus	2.2	3.6	4.7
Tarsus	1.6	3.1	2.2
Total	8.5 mm.	14.7 mm.	16.8 mm.

Dorsum finely granulate, dorsal scutes unarmed. Posterior margins of the free tergites armed with tubercles; the third free tergite with three small spinules, second free tergite bearing a median spine. Eye tubercle normal, with a small spine over each eye. Abdomen long with the widest portion in the region of the fourth coxae. Venter and coxae finely granulate.

Legs: armed only with a few scattered hairs. Tarsal articulations: 6–8–?–6. End group of articulations of both first and second legs, three in number.

Chelicerae normal.

Palpus: trochanter, 0.4 mm. long; femur, 1.4; patella, 0.9; tibia, 1.4; and tarsus, 1.3. Total length, 5.4 mm. Palpus robust; tibia armed with four spine-bearing tubercles on either side. Tarsus with two on either side.

Dorsum reddish brown with lighter mottlings outlining the median line, the divisions of the areas, posterior margins of the free tergites and the median portion of the eye tubercle.

TYPE LOCALITY.—Female holotype from Casita Alta, Chiriqui, Panama, January 16, 1940 (G. C. Wood).

SUBORDER PALPATORES THORELL

PHALANGIDAE Simon

Gagrellinae Thorell

Geaya unicolor Roewer

Geaya unicolor ROEWER, 1910, Abh. Ver. Hamburg, XIX, fasc. 4, p. 161, Pl. III, fig. 30.—*Embrikia unicolor* ROEWER, 1910, Ent. Rundsch., XXVII, p. 177.—*Geaya unicolor* ROEWER, 1923, Die Weberknechte der Erde, p. 1067, Fig. 1167.

RECORD.—Honduras; and El Volcan, Chiriqui, Panama, March 7, 1936 (W. J. Gertsch).

Prionostemma coriaceum (Cambridge)

Leiobunum coriaceum CAMBRIDGE, 1904, Biol. Centrali. American, Arach., II, p. 582.—BANKS, 1909, Proc. Acad. Nat. Sci. Philadelphia, LXI, p. 232.—*Prionostemma coriaceum* ROEWER, 1910, Abh. Ver. Hamburg, XIX, fasc. 4, p. 177.—ROEWER, 1923, Die Weberknechte der Erde, p. 1078, Fig. 106.

RECORD.—El Volcan, Chiriqui, Panama, February 18, 1936 (W. J. Gertsch).

Phalangiinae Simon

Metopilio ornatipes (Banks)

Phalangium ornatipes BANKS, 1909, Proc. Acad. Nat. Sci. Philadelphia, LXI, p. 231.—*Metopilio ornatipes* ROEWER, 1911, Arch. Naturg., LXXVIII, Supp. 2, p. 104.—ROEWER, 1911, Abh. Ver. Hamburg, XX, fasc. 1, p. 268.—ROEWER, 1923, Die Weberknechte der Erde, p. 861, Fig. 1028.

RECORD.—San José, Costa Rica, March 23, 1905 (F. C. Paulmeier), and Iraza, Costa Rica, March 21, 1905 (F. C. Paulmeier).

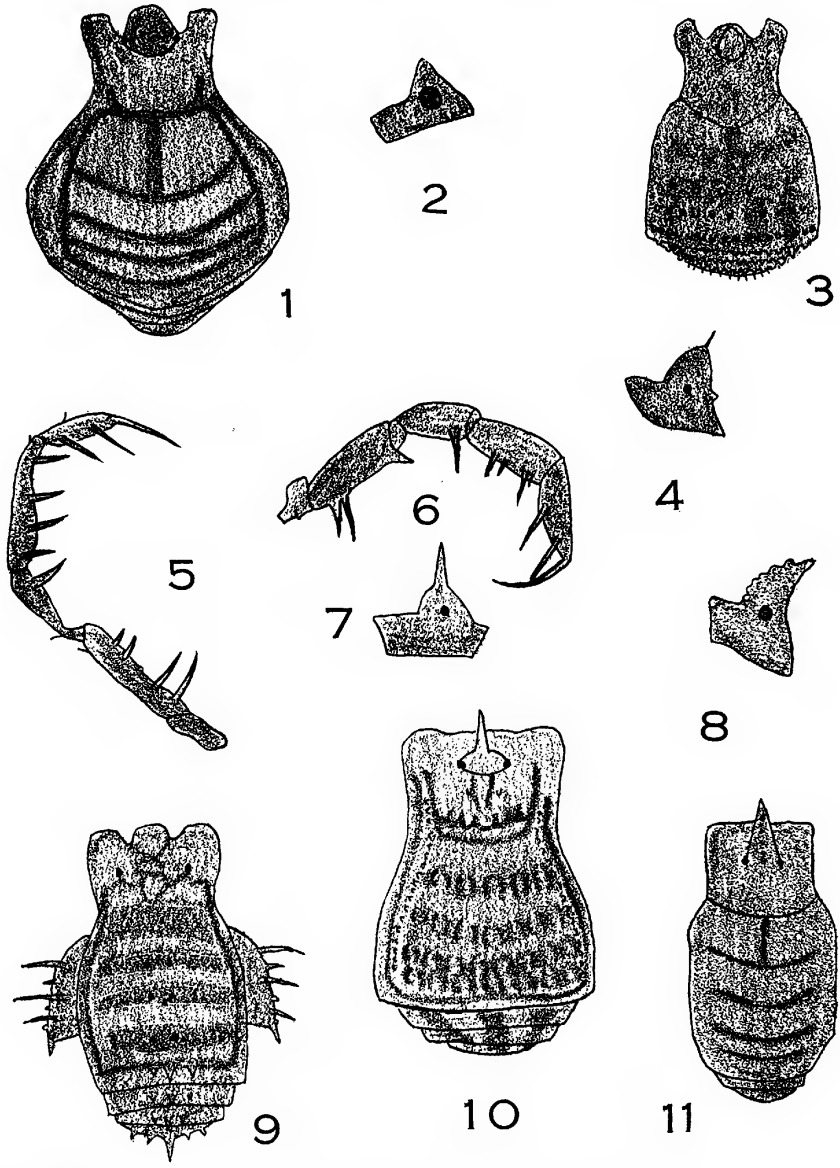


Fig. 1. *Paraconomma ovala*, new species, dorsal view of female holotype.
Fig. 2. Idem, lateral view of eye tubercle.
Fig. 3. *Paraconomma spino-oculorum*, new species, dorsal view of male holotype.
Fig. 4. Idem, lateral view of eye tubercle.
Fig. 5. *Antagona spinula*, new species, lateral view of left palpus of male holotype.
Fig. 6. *Neoscotolemon lutzi*, new species, lateral view of left palpus of male holotype.
Fig. 7. Idem, lateral view of eye tubercle.
Fig. 8. *Pseudomitraceras minutus*, new species, lateral view of eye tubercle of male holotype.
Fig. 9. *Antagona spinula*, new species, dorsal view of male holotype.
Fig. 10. *Neoscotolemon lutzi*, new species, dorsal view of male holotype.
Fig. 11. *Pseudomitraceras minutus*, new species, dorsal view of male holotype.

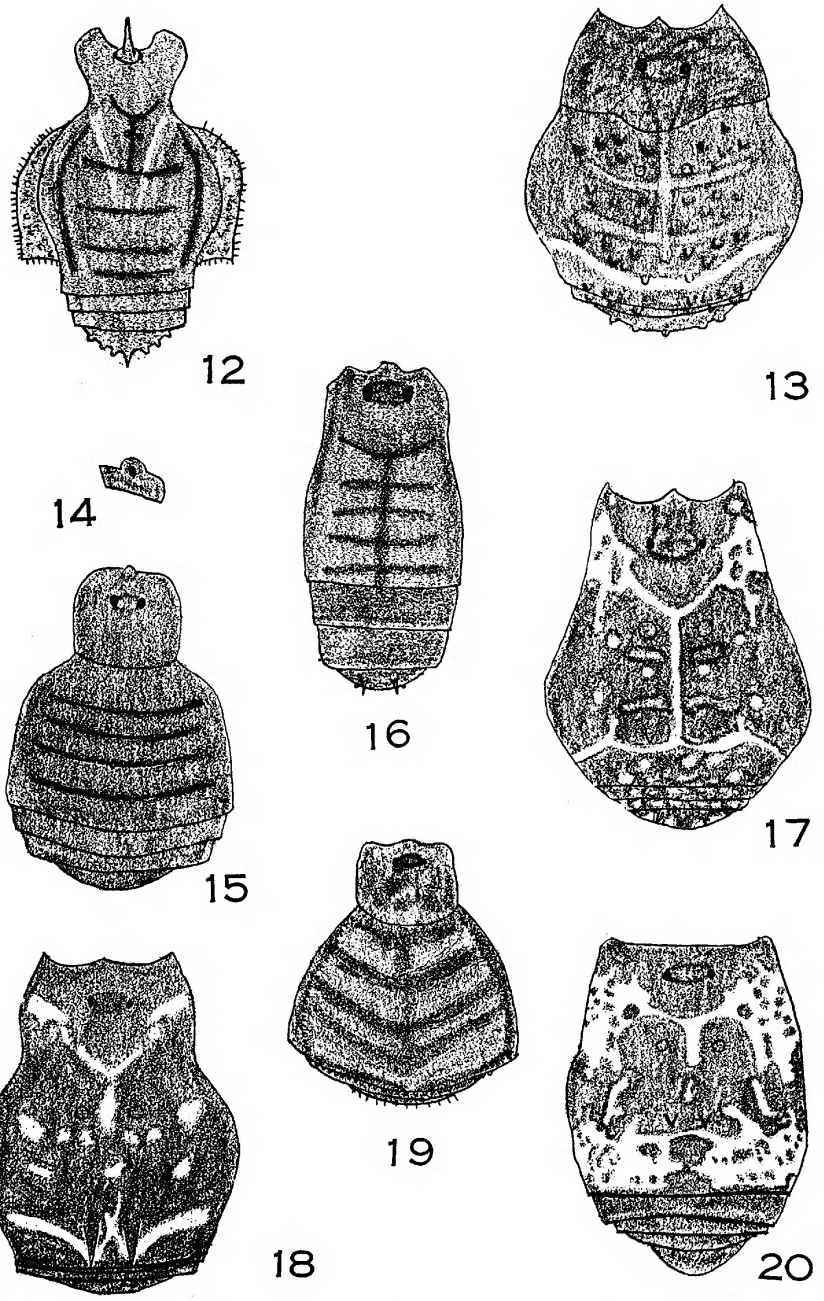
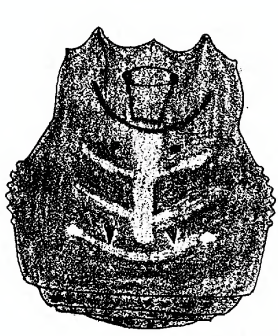


Fig. 12. *Kimula elongata*, new species, dorsal view of male holotype.
Fig. 13. *Cynortula garna*, new species, dorsal view of female holotype.
Fig. 14. *Kalina parallela*, new species, lateral view of eye tubercle of female holotype.
Fig. 15. Idem, dorsal view of female holotype.
Fig. 16. *Azaca longa*, new species, dorsal view of female holotype.
Fig. 17. *Cynorta limona*, new species, dorsal view of male holotype.
Fig. 18. *Cynorta hassleri*, new species, dorsal view of female holotype.
Fig. 19. *Hewus gertschi*, new species, dorsal view of male holotype.
Fig. 20. *Cynorta casita*, new species, dorsal view of female holotype.



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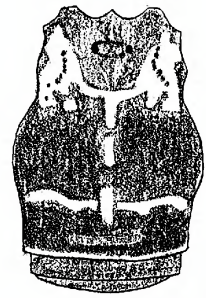

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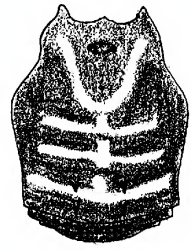

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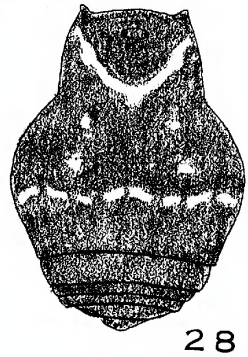

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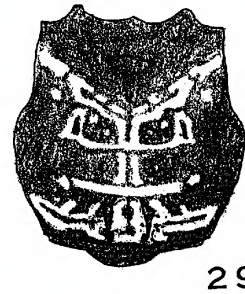

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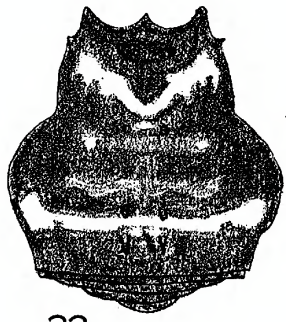
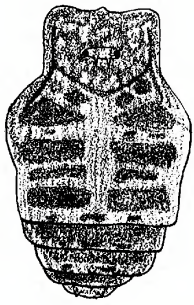
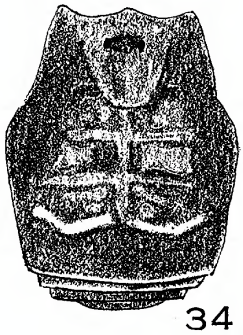
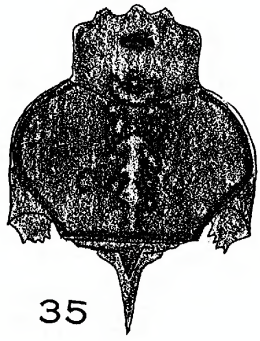
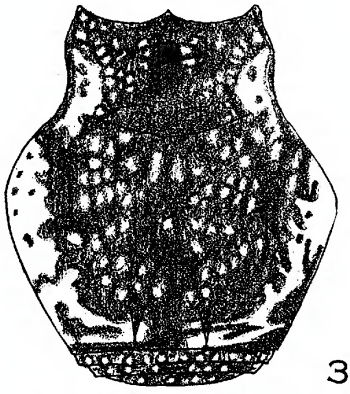
Fig. 21. *Cynorta sayensis*, new species, dorsal view of male holotype.
Fig. 22. *Cynortoides quadrispinosa*, new species, dorsal view of female holotype.
Fig. 23. *Eucynortella longa*, new species, dorsal view of female holotype.
Fig. 24. *Cynortula zaca*, new species, dorsal view of male.
Fig. 25. *Cynortoides marginata*, new species, dorsal view of female holotype.
Fig. 26. *Eucynortella woodi*, new species, dorsal view of female holotype.
Fig. 27. *Cynortoides haitiensis* Roewer, dorsal view of male.
Fig. 28. *Eucynortella panamensis*, new species, dorsal view of female holotype.
Fig. 29. *Metacynortoides bilineata*, new species, dorsal view of female holotype.





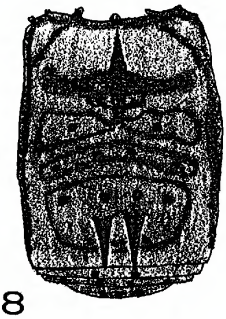


Fig. 30. *Vonones planus*, new species, dorsal view of male holotype.
Fig. 31. *Metacynortoides transversalis*, new species, dorsal view of female holotype.
Fig. 32. *Metacynortoides romanus*, new species, dorsal view of female holotype.
Fig. 33. *Kaluga elongata*, new species, dorsal view of female holotype.
Fig. 34. *Kevonones irazus*, new species, dorsal view of female holotype.
Fig. 35. *Rooma caudaspina*, new species, dorsal view of male holotype.
Fig. 36. *Acromares vittatum*, new species, dorsal view of male holotype.
Fig. 37. Idem, lateral view of patella and tibia of left fourth leg of male.
Fig. 38. *Parastygnoplus tuberculatus*, new species, dorsal view of male holotype.